



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

December 22, 2003

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

TO: Interested Parties / Applicant

RE: Heckett MultiServ Plant 11 / 089-17482-00367

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER-MOD.dot 9/16/03



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December 22, 2003

Mr. Gene A. Iannazzo
Heckett MultiServ Plant 11
P.O. Box 3550
East Chicago, Indiana 46394

Re: Minor Source Modification No:
089-17482-00367

Dear Mr. Iannazzo:

Heckett MultiServ Plant 11 applied for a Part 70 operating permit on September 16, 1996 for a slag and kish processing plant. An application to modify the source was received on July 2, 2003. Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction and operation at the source:

- (a) One (1) ferrous recovery plant, identified as BOF #2, constructed in 2004, used to convey and separate slag and kish, with a maximum throughput rate of 600 tons of slag and kish mixture per hour, controlled by water suppression, consisting of the following:
 - (1) Two (2) feeders.
 - (2) One (1) grizzly.
 - (3) Two (2) double deck screens.
 - (4) One (1) single deck screen.
 - (5) Thirteen (13) conveyors.
 - (6) Eight (8) stock piles.
- (b) One (1) ferrous recovery plant, identified as BOF #4, constructed in 2004, used to convey and separate slag and kish, with a maximum throughput rate of 300 tons of slag and kish mixture per hour, controlled by water suppression, consisting of the following:
 - (1) Two (2) feeders.
 - (2) One (1) grizzly.
 - (3) Three (3) double deck screens.
 - (4) Fifteen (15) conveyors.
 - (5) Nine (9) stock piles.
 - (6) One (1) crusher system, with a maximum throughput rate of 80 tons/hr, consisting of the following:

- (A) One (1) crusher;
- (B) One (1) parabelt; and
- (C) Four (4) conveyors;
- (c) One (1) portable ferrous recovery plant, constructed in 2004, used to convey and separate slag and kish, with a maximum throughput rate of 300 tons of slag and kish mixture per hour, controlled by water suppression, consisting of the following:
 - (1) One (1) feeder.
 - (2) One (1) double deck screen.
 - (3) Six (6) conveyors.
 - (4) Three (3) stock piles.
- (d) One (1) boat loading operation, constructed in 1991, with a maximum throughput rate of 1,300 tons of slag per hour, controlled by water suppression, consisting of the following:
 - (1) One (1) feeder.
 - (2) One (1) conveyor.
 - (3) One (1) stock pile.

The proposed Minor Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(l)(3). If there are no changes to the proposed construction of the emission units, the source may begin operating on the date that IDEM receives an affidavit of construction pursuant to 326 IAC 2-7-10.5(h). If there are any changes to the proposed construction the source can not operate until an Operation Permit Validation Letter is issued.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Yu-Lien Chu, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7871 to speak directly to Ms. Chu. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

ERG/YC

cc: File - Lake County
U.S. EPA, Region V
Lake County Health Department
Northwest Regional Office

Air Compliance Section Inspector - Rick Massoels/Ramesh Tejuja
Compliance Data Section - Karen Ampil
Administrative and Development - Sara Cloe
Technical Support and Modeling - Michele Boner



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PART 70 MINOR SOURCE MODIFICATION OFFICE OF AIR QUALITY

**Heckett MultiServ Plant 11
3236 Watling Street
East Chicago, Indiana 46312**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Minor Source Modification No.: 089-17482-00367	
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: December 22, 2003

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SECTION A

SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the emission units contained in conditions A.1 and A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary slag and kish processing plant.

Responsible Official:	Executive V.P. and General Manager
Source Address:	Ispat Inland, Inc., 3236 Watling Street, East Chicago, Indiana 46312
Mailing Address:	P.O. Box 3550, East Chicago, Indiana 46312
General Source Phone Number:	219-399-3506
SIC Code:	3295
County Location:	Lake
Source Location Status:	Nonattainment for Ozone, PM10, and SO ₂ Attainment for all other criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD and Emission Offset Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Part 70 Source Definition [326 IAC 2-7-1(22)]

Ispat Inland, Inc. is an integrated steel mill consisting of the source and several on-site contractors:

- (a) Ispat Inland, Inc., the primary operation, owns and operates a steel mill, located at 3210 Watling Street, East Chicago, Indiana 46312 (Plant ID # 089-00316); and
- (b) Heckett MultiServ Plant 11, the supporting operation, owns and operates a slag and kish processing plant, located at 3210 Watling Street, East Chicago, Indiana 46312 (Plant ID # 089-00369).

IDEM has determined that Ispat Inland, Inc. and Heckett MultiServ Plant 11 are under common control of Ispat Inland, Inc. These two plants are considered one source due to the contractual control. Therefore, the term "source" in the Part 70 documents refers to both Ispat Inland, Inc. and Heckett MultiServ Plant 11 as one source.

A.3 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

- (a) One (1) ferrous recovery plant, identified as BOF #2, constructed in 2004, used to convey and separate slag and kish, with a maximum throughput rate of 600 tons of slag and kish mixture per hour, controlled by water suppression, consisting of the following:
 - (1) Two (2) feeders.

- (2) One (1) grizzly.
 - (3) Two (2) double deck screens.
 - (4) One (1) single deck screen.
 - (5) Thirteen (13) conveyors.
 - (6) Eight (8) stock piles.
- (b) One (1) ferrous recovery plant, identified as BOF #4, constructed in 2004, used to convey and separate slag and kish, with a maximum throughput rate of 300 tons of slag and kish mixture per hour, controlled by water suppression, consisting of the following:
- (1) Two (2) feeders.
 - (2) One (1) grizzly.
 - (3) Three (3) double deck screens.
 - (4) Fifteen (15) conveyors.
 - (5) Nine (9) stock piles.
 - (6) One (1) crusher system, with a maximum throughput rate of 80 tons/hr, consisting of the following:
 - (A) One (1) crusher;
 - (B) One (1) parabelt; and
 - (C) Four (4) conveyors;
- (c) One (1) portable ferrous recovery plant, constructed in 2004, used to convey and separate slag and kish, with a maximum throughput rate of 300 tons of slag and kish mixture per hour, controlled by water suppression, consisting of the following:
- (1) One (1) feeder.
 - (2) One (1) double deck screen.
 - (3) Six (6) conveyors.
 - (4) Three (3) stock piles.
- (d) One (1) boat loading operation, constructed in 1991, with a maximum throughput rate of 1,300 tons of slag per hour, controlled by water suppression, consisting of the following:
- (1) One (1) feeder.
 - (2) One (1) conveyor.
 - (3) One (1) stock pile.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.3 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) when operation begins, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the

PMP requirements of 326 IAC 1-6-3 for the unit.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

(d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Fugitive Dust Emissions [326 IAC 6-1-11.1]

Pursuant to 326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

(a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).

(b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).

- (c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).
- (d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.
- (e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (f) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.
- (g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
- (h) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
- (i) The PM₁₀ emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (j) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (k) Any facility or operation not specified in 326 IAC 6-1-11.1(d) shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on September 4, 2003. This plan is included in Attachment A.

C.7 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule, or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

Compliance Requirements [326 IAC 2-1.1-11]

C.8 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.9 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

If required by Section D, all monitoring and record keeping requirements shall be implemented when operation begins. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.

C.10 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.11 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan under 40 CFR 60/63, such plans shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and comprised of:
- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.
 - (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan to include such response steps taken.

The OMM Plan shall be submitted within the time frames specified by the applicable 40 CFR60/63 requirement.

- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
- (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (2) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.
 - (3) Failure to take reasonable response steps shall be considered a deviation from the permit.

- (c) The Permittee is not required to take any further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for a minor permit modification to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred, the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.
- (e) The Permittee shall record all instances when, in accordance with Section D, response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

C.12 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, and the Northwest Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

IDEM, OAQ

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section)
or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

Northwest Regional Office

Telephone No.: 1-888-209-8892, or
Telephone No. 219-881-6712
Facsimile No.: 219-881-6745

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(i) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
 - (g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the

Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.13 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.14 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) The reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015
- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

- (a) One (1) ferrous recovery plant, identified as BOF #2, constructed in 2004, used to convey and separate slag and kish, with a maximum throughput rate of 600 tons of slag and kish mixture per hour, controlled by water suppression, consisting of the following:
 - (1) Two (2) feeders.
 - (2) One (1) grizzly.
 - (3) Two (2) double deck screens.
 - (4) One (1) single deck screen.
 - (5) Thirteen (13) conveyors.
 - (6) Eight (8) stock piles.
- (b) One (1) ferrous recovery plant, identified as BOF #4, constructed in 2004, used to convey and separate slag and kish, with a maximum throughput rate of 300 tons of slag and kish mixture per hour, controlled by water suppression, consisting of the following:
 - (1) Two (2) feeders.
 - (2) One (1) grizzly.
 - (3) Three (3) double deck screens.
 - (4) Fifteen (15) conveyors.
 - (5) Nine (9) stock piles.
 - (6) One (1) crusher system, with a maximum throughput rate of 80 tons/hr, consisting of the following:
 - (A) One (1) crusher;
 - (B) One (1) parabelt; and
 - (C) Four (4) conveyors;
- (c) One (1) portable ferrous recovery plant, constructed in 2004, used to convey and separate slag and kish, with a maximum throughput rate of 300 tons of slag and kish mixture per hour, controlled by water suppression, consisting of the following:
 - (1) One (1) feeder.
 - (2) One (1) double deck screen.
 - (3) Six (6) conveyors.
 - (4) Three (3) stock piles.

SECTION D.1 FACILITY OPERATION CONDITIONS (Continued)

Facility Description [326 IAC 2-7-5(15)]:

(d) One (1) boat loading operation, constructed in 1991, with a maximum throughput rate of 1,300 tons of slag per hour, controlled by water suppression, consisting of the following:

- (1) One (1) feeder.
- (2) One (1) conveyor.
- (3) One (1) stock pile.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 PSD and Emission Offset Minor Limits [326 IAC 2-2] [326 IAC 2-3]

In order to make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset) not applicable, the Permittee shall comply with the following:

- (a) The PM and PM10 emissions from each of the feeders, the screens and grizzlies, the crusher, and the conveyor transfer points at the ferrous recover plants (BOF #2, BOF #4, and the portable one) and the boat loading operation shall be less than the emission limits listed in the table below:

Emission Units	PM Emission Limit (lbs/ton)	PM10 Emission Limit (lbs/ton)
Feeder	0.00088	0.00043
Each Screen and Grizzly	0.001764	0.00084
Each Conveyor Transfer Point	0.000101	0.000048
The Crusher at BOF #4	0.001239	0.00059

- (b) The maximum throughput rate should be limited as follows:
- (1) The maximum throughput rate for the ferrous recovery plant BOF #2 shall be limited to less than 2,496,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
 - (2) The maximum throughput rate for the ferrous recovery plant BOF #4 shall be limited to less than 1,248,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
 - (3) The maximum throughput rate for the portable ferrous recovery plant shall be limited to less than 1,248,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

- (4) The maximum throughput rate for the boat loading operation shall be limited to less than 390,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (c) The Permittee shall remove the all the existing ferrous recover plants, which include the existing main plant, minus plant, and plus plant, before the operation of this modification.

Combined with the PM/PM10 emissions from the storage piles (fugitive emissions), the emissions from this modification are limited to less than 25 tons/yr for PM and less than 15 tons/yr for PM10. Therefore, the requirements of 326 IAC 2-2 and 326 IAC 2-3 are not applicable.

D.1.2 Particulate [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Limitations), the PM emissions from each of the feeders, the screens and grizzlies, the crusher, and the conveyor transfer points shall not exceed 0.03 grain per dry standard cubic foot.

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this facility.

Compliance Determination Requirements

D.1.4 PM and PM10 Control

In order to comply with Conditions D.1.1(a) and D.1.2, the Permittee shall apply an initial application of water or a mixture of water and wetting agent to control the PM and PM10 emissions from the feeders, the screens and grizzlies, the crusher, and the conveyors. The suppressant shall be applied in a manner and at a frequency sufficient to ensure compliance with Conditions D.1.1(a) and D.1.2. If weather conditions preclude the use of wet suppression, the Permittee shall perform chemical analysis on the metallurgical material to ensure it has a moisture content greater than 1.5 percent of the process stream by weight. The method for moisture content analysis shall be approved by IDEM, OAQ.

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.5 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1(b), the Permittee shall maintain monthly throughput records of each of the ferrous recovery plants and the boat loading operation.
- (b) To document compliance with Condition D.1.4, the Permittee shall maintain records of the chemical analysis of the metallurgical material, as needed.
- (c) To document compliance with Condition D.1.3, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements of this permit.

D.1.6 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1(b) shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: Heckett MultiServe Plant 11
Source Address: 3236 Watling Street, East Chicago, Indiana 46312
Mailing Address: P.O. Box 3550, East Chicago, Indiana 46312
Source Modification No.: 089-17482-00367

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

- ? Test Result (specify)
- ? Report (specify)
- ? Notification (specify)
- ? Affidavit (specify)
- ? Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Source Modification Quarterly Report

Source Name: Heckett MultiServe Plant 11
Source Address: 3236 Watling Street, East Chicago, Indiana 46312
Mailing Address: P.O. Box 3550, East Chicago, Indiana 46312
Source Modification No.: 089-17482-00367
Facility: Ferrous Recovery Plant BOF #2
Parameter: Throughput Rate
Limit: Less than 2,496,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

? No deviation occurred in this quarter.

? Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by:
Title / Position:
Signature:
Date:
Phone:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Source Modification Quarterly Report

Source Name: Heckett MultiServe Plant 11
Source Address: 3236 Watling Street, East Chicago, Indiana 46312
Mailing Address: P.O. Box 3550, East Chicago, Indiana 46312
Source Modification No.: 089-17482-00367
Facility: Ferrous Recovery Plant BOF #4
Parameter: Throughput Rate
Limit: Less than 1,248,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

? No deviation occurred in this quarter.

? Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by:
Title / Position:
Signature:
Date:
Phone:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Source Modification Quarterly Report

Source Name: Heckett MultiServe Plant 11
Source Address: 3236 Watling Street, East Chicago, Indiana 46312
Mailing Address: P.O. Box 3550, East Chicago, Indiana 46312
Source Modification No.: 089-17482-00367
Facility: Portable Ferrous Recovery Plant
Parameter: Throughput Rate
Limit: Less than 1,248,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

? No deviation occurred in this quarter.

? Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by:
Title / Position:
Signature:
Date:
Phone:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

Part 70 Source Modification Quarterly Report

Source Name: Heckett MultiServe Plant 11
Source Address: 3236 Watling Street, East Chicago, Indiana 46312
Mailing Address: P.O. Box 3550, East Chicago, Indiana 46312
Source Modification No.: 089-17482-00367
Facility: Boat Landing Operation
Parameter: Throughput Rate
Limit: Less than 390,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

? No deviation occurred in this quarter.

? Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by:
Title / Position:
Signature:
Date:
Phone:

Attachment A

FUGITIVE PARTICULATE MATTER CONTROL PLAN

HECKETT MULTISERV – PLANT 11 ISPAT INLAND, EAST CHICAGO, INDIANA

1.0 INTRODUCTION

The Heckett MultiServ (Heckett) facility and operations covered by the Fugitive Particulate Matter Control Plan (Plan) are located on the grounds of Ispat Inland Inc., East Chicago, Indiana. The facilities and operations are described in detail in Sections 2 and 3 of this Plan.

The Plan addresses open fugitive dust sources as follows:

- Section 2: Identifies the facilities and operations at Heckett
- Section 3: Describes each of the sources at Heckett by general function and by specific characteristics necessary to support PM-10 emission calculations
- Section 4: Identifies control measures
- Section 5: Identifies alternative control measures to be employed when conditions prevent execution of the control measures identified in Section 4
- Section 6: Presents the schedule for implementing each of the control measures

2.0 IDENTIFICATION OF FACILITIES AND OPERATIONS

Heckett is referred to as “the source” and is defined by its facilities and operations. 326 IAC 6-1-11.1(e)(3)(A) through (D) requires inclusion of the source’s name and address; identification of the applicable facilities and operations within the source; and location of the facilities and operations on a map. The entity addressed in the Plan is:

Heckett MultiServ
3236 Watling Street (Mail Code #2-665)
East Chicago, Indiana 46312

2.1 Facilities and Operations

326 IAC 6-1-11.1(e)(3)(C) requires identification of operations and facilities listed in 326 IAC 6-1-11.1(a)(1):

1. Paved roads and parking lots
2. Unpaved roads and parking lots
3. Material transfer
4. Wind erosion from storage piles and exposed areas
5. Material transportation activities
6. Material processing facilities with capacity equal to or greater than ten (10) tons per hour
7. Dust handling equipment
8. Any other facility or operation with a potential to emit fugitive particulate matter and not included in this subsection

Table 1 shows the facilities and operations required to be listed and are commonly referred to as source categories. The actual specific sources comprising each category are located on the map identified as Figure 1, and will be discussed in detail in Sections 3 of this Plan.

There are approximately 0.1 miles of active paved roads at Heckett with approximately 1700 vehicle miles traveled (VMT) yearly. Vehicles using the roads range from light duty passenger vehicles to large capacity haul trucks.

There are approximately 2.0 miles of active unpaved roads at Heckett with approximately 37100 VMT yearly. Vehicles using the roads also range from light duty passenger vehicles to large capacity haul trucks.

Material handling and transfer occurs throughout the facility. Truck, slag pot carrier, overhead crane and front-end loader move materials.

Exposed areas include uncovered expanses of land that have neither structures nor storage piles and are susceptible to wind erosion. Heckett does not have any areas that fall into this category.

Transportation of in-plant material occurs throughout the facility. These operations include hauling of slag from the melt shop to the pits and hauling of slag from the pits to the processing plants.

2.2 Source Location Map

Open dust sources covered in the Plan are shown on Figure 1. Sources coded with a "PR" or a "UR" are paved or unpaved road segments, respectively. Sources coded with an "SP" are storage piles.

3.0 DESCRIPTION OF FACILITIES AND OPERATIONS

This section of the Plan identifies and describes fugitive sources at Heckett. 326 IAC 6-1-11.1(e)(3)(E)(i) through (v) requires full descriptions of the following:

1. The road lengths and widths, average daily traffic, surface silt loading, classification of vehicle traffic, and other data necessary to estimate PM-10 emissions from paved and unpaved roads and parking lots.
2. A description of each storage pile, including the type of material in the pile, its moisture content, the silt content, the throughput, and the equipment used to load onto and load out of the storage piles.
3. A complete description of the material processing facilities on the plant property, including a material flow diagram of the processing lines, the rated capacity of each piece of equipment, and the existing control equipment and their efficiencies, including the process equipment served.
4. A complete description of the material transfer, in-plant transportation and dust handling equipment. Material transfer operations shall include, at a minimum, those operations contained in subsection (c)(13).
5. All other fugitive particulate matter emitting facilities not covered in this clause.

3.1 Paved Road, Unpaved Road, and Storage Piles/Material Handling Description

Table 2 presents the required data to estimate PM-10 for paved roads. Table 3 presents the required data for unpaved roads. Table 4 presents the required data for storage piles and the material handling processes associated with them.

3.2 Material Processing Facilities Description

There are three principal material processing facilities at Heckett that generate material processing fugitive particulate matter emissions. These facilities include the main processing plant, the aggregate processing plant (minus plant) and the iron processing plant (plus plant). These facilities utilize raw material from the slag pits.

Figures 3 through 5 are flow diagrams of each of the material processing facilities discussed above. Equipment capacities, existing control equipment and their efficiencies, and their corresponding process equipment are all discussed and listed in the Heckett Title V permit application submitted September 1996.

3.3 Material Transfer, In-Plant Transportation, and Dust Handling Facilities Description

Materials are moved from one point to another at Heckett in a variety of ways. Dump trucks, front-end loaders, conveyors, overhead cranes and pot carriers. The following provides a test-based description of these activities.

3.3.1 Material Transfer

Each of the three material processing facilities has product conveyors that transfer material onto the ground (refer to Figures 3 through 5 for conveyor identification). Once on the ground, the material is scooped up with a front-end loader and loaded into Ispat trucks for hauling.

Number 4 BOF slag and kish is dumped via a pot carrier into Heckett's pits. The slag is then loaded into haul trucks by front-end loaders. This material is then dumped into the initial hopper at the main processing plant.

Number 2 BOF slag and blast furnace kish is delivered by rail to Heckett by Ispat. The slag pots are dumped with an overhead gantry crane. The slag is then loaded into haul trucks by front-end loaders and dumped into the initial hopper at the main processing plant. Kish is loaded into haul trucks by front-end loaders stockpiled on the ground at the aggregate processing plant (minus plant) for feed by a front-end loader.

3.3.2 In-Plant Transportation

In-plant transportation is conducted by one of two means. Slag from Number 4 BOF is transported via a slag pot carrier to the slag pits. It is then transported to the material processing plant by haul trucks.

Ispat transports slag from Number 2 BOF via rail to Heckett. It is then transported to the material processing plant by haul trucks.

3.3.3 Dust Handling

Heckett does not engage in activities that require dust handling.

4.0 CONTROL STRATEGIES

This section is intended to identify control strategies and their effectiveness for each of the listed source categories as required in 326 IAC 6-1-11.1(e)(3)(F).

4.1 Open Dust Sources

The categories addressed in this section include paved roads, unpaved roads, material transfer, and wind erosion from storage piles and exposed areas.

4.1.1 Road Sources

The paved and unpaved road control plan involves both surface improvements and surface treatments. Surface improvements, as opposed to surface treatments discussed below are relatively permanent. These improvements include grading the roads and placement of slag aggregate in an effort to reduce the amount of silt buildup on the road.

Surface treatments include water applications with a water truck. Watering increases the moisture content which conglomerates particles and reduces their likelihood to become suspended when vehicles pass over the surface.

The control efficiency of unpaved road watering depends upon: (a) the amount of water applied per unit area of road surface; (b) the time between reapplications; (c) traffic volume during that period; and (d) prevailing meteorological conditions during that period. Efficiencies for unpaved road watering are depicted in Figure 2.

4.1.2 Material Transfer Operations and Wind Erosion from Storage Piles and Exposed Areas

Since the fugitive particulate matter control methods for material transfer operations and wind erosion are the same, they are discussed together.

The control plan for emissions in storage pile areas is two fold. In most cases, good work practices provide substantial opportunities for emissions reduction. These practices include the following items:

1. Load and unload on the downwind side of piles when practicable to reduce the wind load on the material.
2. Minimize the drop height of the materials to minimize exposure to wind and disturbance of the pile.

In addition to the above, slag, when left undisturbed, will crust over, forming a natural control technique. Stockpiles that are in this state will be loaded and unloaded from one side to avoid disturbance of the crust.

Areas in which roads, structures or stockpiles do not exist are considered exposed areas. These areas may be disturbed during the year on an unpredictable schedule.

4.2 Material Processing Facilities

Material processing facilities are described in Section 3.2 of this Plan. The raw material processed through these facilities is quenched with water prior to processing. Typical moisture content of the material ranges from 2-10% providing a control efficiency in excess of 90%¹.

¹ AP-42, Table 11.19.2-2 Emission Factors for Crushed Stone Processing Operations. January 1995.

4.3 In-Plant Transportation

In-plant transportation of materials is described in section 3.3.2 of this Plan. The focus of this source category is the transport of materials via hauling vehicles. This category includes dust blown from the bed and from horizontal surfaces of the vehicle that has collected material.

Molten slag transported from Number 4 BOF contains less than 0.5% silt and therefore not defined as a particulate producing material.

Slag transported from the Number 2 and 4 slag pits is watered prior to loading and transport. Moisture contents range from approximately 2-10% providing a control efficiency in excess of 90%².

4.4 Dust Handling Equipment

Heckett does not engage in activities that require dust-handling equipment.

5.0 ALTERNATIVE CONTROLS UNDER ADVERSE CONDITIONS

326 IAC 6-1-11.1(e)(3)(G) requires "a list of the conditions that will prevent control measures and practices from being applied and alternative control measures and practices that will achieve compliance with the emissions limitations." This section of the Plan addresses alternative controls on a case-by-case basis.

5.1 Open Dust Sources

Freezing temperatures can affect the control of fugitive dust from open dust sources. Freezing temperatures preclude the use of the water truck during winter months, which is an element in the control of paved and unpaved roads.

5.1.1 Road Sources

The primary road control measure includes the use of a water truck. When conditions exist that prevent the use of the water truck, Heckett utilizes an off-road dump truck or front-end loader. The truck/loader will be filled with water for application to the dust source.

5.1.2 Material Transfer Operations and Wind Erosion from Storage Piles and Exposed Areas

Since the primary material transfer operations are good work practices, such as minimizing drop height and loading/unloading on the leeward side of piles, there is no need for an alternative set of controls.

5.2 Material Processing Facilities

The primary material processing control utilizes water quenching at the slag pits. This method of control is not adversely affected by freezing temperatures; as such there is no need for an alternative set of controls.

5.3 In-Plant Transportation

² AP-42, Table 11.19.2-2 Emission Factors for Crushed Stone Processing Operations. January 1995.

The primary material processing control utilizes water quenching at the slag pits. This method of control is not adversely affected by freezing temperatures; as such there is no need for an alternative set of controls.

5.4 Dust Handling Equipment

Heckett does not engage in activities that require dust-handling equipment

6.0 SCHEDULE FOR ACHIEVING COMPLIANCE

326 IAC 6-1-11.1(e)(3)(H) requires a schedule for achieving compliance with the provisions of the Plan. This Plan will be implemented immediately upon approval.

Table 1: Source Category and Coverage
Heckett MultiServ Plant 11
E. Chicago, IN

Source Category	Category Coverage
Paved Roads	Approximately 0.1 miles total; Approximately 1700 VMT/year
Unpaved Roads	Approximately 2.0 miles total; Approximately 37,100 VMT/year
Material Transfer and Handling	Approximately 1,100,000 tons/yr of fugitive particulate matter producing material moved
Wind Erosion from Storage Piles and Exposed Areas	Approximately 4 wind erosion fugitive particulate matter producing piles
Material Transportation Activities	Mobile vehicle movement of raw material, mobile vehicle VMT included in emission inventory
Material Processing Facilities	See Heckett MultiServ Title V Permit Application

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Part 70 Minor Source Modification

Source Background and Description

Source Name:	Heckett MultiServ Plant 11
Source Location:	Ispat Inland, Inc., 3236 Watling Street, East Chicago, Indiana 46312
County:	Lake
SIC Code:	3295
Operation Permit No.:	089-6581-00367
Operation Permit Issuance Date:	Pending
Minor Source Modification No.:	089-17482-00367
Permit Reviewer:	ERG/YC

The Office of Air Quality (OAQ) has reviewed a modification application from Heckett MultiServ Plant 11, a contractor of Ispat Inland, Inc., relating to the construction and operation of the following emission units:

- (a) One (1) ferrous recovery plant, identified as BOF #2, constructed in 2004, used to convey and separate slag and kish, with a maximum throughput rate of 600 tons of slag and kish mixture per hour, controlled by water suppression, consisting of the following:
 - (1) Two (2) feeders.
 - (2) One (1) grizzly.
 - (3) Two (2) double deck screens.
 - (4) One (1) single deck screen.
 - (5) Thirteen (13) conveyors.
 - (6) Eight (8) stock piles.
- (b) One (1) ferrous recovery plant, identified as BOF #4, constructed in 2004, used to convey and separate slag and kish, with a maximum throughput rate of 300 tons of slag and kish mixture per hour, controlled by water suppression, consisting of the following:
 - (1) Two (2) feeders.
 - (2) One (1) grizzly.
 - (3) Three (3) double deck screens.
 - (4) Fifteen (15) conveyors.

- (5) Nine (9) stock piles.
- (6) One (1) crusher system, with a maximum throughput rate of 80 tons/hr, consisting of the following:
 - (A) One (1) crusher;
 - (B) One (1) parabelt; and
 - (C) Four (4) conveyors;
- (c) One (1) portable ferrous recovery plant, constructed in 2004, used to convey and separate slag and kish, with a maximum throughput rate of 300 tons of slag and kish mixture per hour, controlled by water suppression, consisting of the following:
 - (1) One (1) feeder.
 - (2) One (1) double deck screen.
 - (3) Six (6) conveyors.
 - (4) Three (3) stock piles.
- *(d) One (1) boat loading operation, constructed in 1991, with a maximum throughput rate of 1,300 tons of slag per hour, controlled by water suppression, consisting of the following:
 - (1) One (1) feeder.
 - (2) One (1) conveyor.
 - (3) One (1) stock pile.

*Note: This operation has potential to emit PM/PM10 before control greater than 5 tons/yr and was constructed and operated without proper air permit.

History

Heckett Multiserv Plant 11 (referred to as "Heckett"), a contractor to Ispat Inland, Inc., is an existing slag and kish processing plant which recovers the ferrous material from the slag received from Ispat Inland, Inc. On July 2, 2003, Heckett submitted an application to the OAQ requesting to reconstruct their plant due to the wear out of the existing units. This modification includes the following:

- (a) The removal of the existing slag processing operations, which includes main, minus, and plus plants.
- (b) The construction of two (2) stationary ferrous recovery plants and one (1) portable ferrous recovery plant using both existing equipment and new equipment.
- (c) An air approval to cover the operation of an existing boat loading operation, which does not have any air approval since it was constructed in 1991.

Heckett applied for a Part 70 Permit (T089-6581-00367) on September 16, 1996 and their Part 70 permit is currently being reviewed by IDEM, OAQ.

Source Definition

Ispat Inland, Inc. is an integrated steel mill consisting of the source and several on-site contractors:

- (a) Ispat Inland, Inc., the primary operation, owns and operates a steel mill, located at 3210 Watling Street, East Chicago, Indiana 46312 (Plant ID # 089-00316); and
- (b) Heckett MultiServ Plant 11, the supporting operation, owns and operates a slag and kish processing plant, located at 3210 Watling Street, East Chicago, Indiana 46312 (Plant ID # 089-00367).

IDEM has determined that Ispat Inland, Inc. and Heckett MultiServ Plant 11 are one single source under 326 IAC 2-7. These two plants are located at the same property and are considered one (1) single source due to the contractual control. Therefore, the term "source" in the Part 70 documents refers to both Ispat Inland, Inc. and Heckett MultiServ Plant 11 as one source.

Separate Part 70 permits will be issued to Ispat Inland, Inc. and Heckett MultiServ Plant 11 solely for administrative purpose.

Enforcement Issue

- (a) IDEM is aware that the boat loading operation has been constructed and operated prior to receipt of the proper permit.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules.

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on July 2, 2003. Additional information was received on September 4, 2003, and November 12, 2003.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 8).

Potential To Emit of Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	172
PM-10	81.8
SO ₂	--
VOC	--
CO	--
NO _x	--

Justification for Modification

This modification is being performed through a Part 70 Minor Source Modification pursuant to 326 IAC 2-7-10.5(d)(5)(E) as the potential to emit PM/PM10 of this modification is limited to less than 25 tons/yr by limiting the raw material throughput.

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM-10	*Moderate Nonattainment
SO ₂	Primary Nonattainment
NO ₂	Attainment
Ozone	Severe Nonattainment
CO	Maintenance Attainment
Lead	Attainment

*Note: Lake County has been federally redesignated in 40 CFR 81.315 as attainment and the Air Pollution Control Board will be making the same redesignation in the state rules.

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Lake County has been designated as severe nonattainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) Lake County has been designated as nonattainment for PM10 and SO₂. Therefore, PM10 and SO₂ emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (c) Lake County has been classified as attainment for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) Fugitive Emissions
 Since this type of operation is in one of the 28 listed source categories under 326 IAC 2-2 and 326 IAC 2-3, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	2,016
PM-10	2,016
SO ₂	3,734
VOC	1,759
CO	118,123
NO _x	6,465

- (a) This existing source is a major stationary source because one or more regulated pollutants are emitted at a rate of 100 tons per year or more, and it is in one of the 28 listed source categories.
- (b) These emissions are based upon the 2001 emission inventory information of Ispat Inland, Inc. (Plant ID #089-00316).

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Ferrous Recovery Plant BOF #2	Less than 9.93	Less than 4.76	-	-	-	-	-
Ferrous Recovery Plant BOF #4	Less than 4.76	Less than 2.28	-	-	-	-	-
Portable Recovery Plant	Less than 1.90	Less than 0.91	-	-	-	-	-
Boat Loading Operation	Less than 0.55	Less than 0.27	-	-	-	-	-
*Storage Pile (fugitive)	Less than 7.29	Less than 3.45	-	-	-	-	-
Total PTE of this Modification	Less than 24.4	Less than 11.7	-	-	-	-	-
PSD and Emission Offset Significant Thresholds	25	15	40	25	100	40	NA

Note: (*) Since this source is in one of the 28 source categories under 326 IAC 2-2 and 326 IAC 2-3, the fugitive particulate matter (PM) emissions from the storage pile are counted towards determination of PSD and Emission Offset applicability.

- (a) This modification to an existing major stationary source is not major because the emission increase is less than the PSD and Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-2 and 326 IAC 2-3, the PSD and Emission Offset requirements do not apply.
- (b) The PM emissions from this modification are limited to less than 25 tons/yr and the PM10 emissions from this modification are limited to less than 15 tons/yr. This is attained by limiting the material throughput rates for the proposed units.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.
- (b) This source processes the skag and kish iron received from the steel mill, but neither slag nor kish iron meets the definition of "nonmetallic mineral" in 40 CFR 60.671. Therefore, the New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants (40 CFR 60.670-676, Subpart OOO) are not applicable.
- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this modification.
- (d) This modification does not involve a pollutant-specific emissions unit:
 - (1) with the potential to emit before controls equal to or greater than one hundred (100) tons per year, and
 - (2) that is subject to an emission limit and has a control device that is necessary to meet that limit.

Therefore, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable.

State Rule Applicability - The Ferrous Recovery Plants and The Boat Loading Operations

326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset)

This source is collocated with Ispat Inland, Inc., which is an existing PSD and Emission Offset Major source and is in 1 of the 28 source categories defined in 326 IAC 2-2-1(p)(1). The potential to emit of the units in this modification is greater than 25 tons/yr for PM and greater than 15 tons/yr for PM10. In order to be considered a minor modification for PSD and Emission Offset Review Purposes, the Permittee shall comply with the following requirements:

- (a) The PM and PM10 emissions from each of the feeders, the screens and grizzlies, the crusher, and the conveyor transfer points at the ferrous recover plants (BOF #2, BOF #4, and the portable one) and the boat loading operation shall be less than the emission limits listed in the table below:

Emission Units	PM Emission Limit (lbs/ton)	PM10 Emission Limit (lbs/ton)
Feeder	0.00088	0.00043
Each Screen and Grizzly	0.001764	0.00084

Each Conveyor Transfer Point	0.000101	0.000048
The Crusher at BOF #4	0.001239	0.00059

- (b) The maximum throughput rate should be limited as follows:
- (1) The maximum throughput rate for the ferrous recovery plant BOF #2 shall be limited to less than 2,496,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
 - (2) The maximum throughput rate for the ferrous recovery plant BOF #4 shall be limited to less than 1,248,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
 - (3) The maximum throughput rate for the portable ferrous recovery plant shall be limited to less than 1,248,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
 - (4) The maximum throughput rate for the boat loading operation shall be limited to less than 390,000 tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (c) The Permittee shall remove the all the existing ferrous recover plants, which include the existing main plant, minus plant, and plus plant, before the operation of this modification.

Combined with the PM/PM10 emissions from the storage piles (fugitive emissions), the emissions from this modification are limited to less than 25 tons/yr for PM and less than 15 tons/yr for PM10. Therefore, the requirements of 326 IAC 2-2 and 326 IAC 2-3 are not applicable.

326 IAC 2-4.1 (New Sources of Hazardous Air Pollutants)

There are no HAPs emissions from this modification. Therefore, the requirements of 326 IAC 2-4.1 are not applicable.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity for sources located in Lake County shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-1-10.1 (Lake County PM10 Emission Requirements)

This source is collocated with Ispat Inland, Inc., which is one of the sources listed under 326 IAC 6-1-10.1 (Lake County PM10 Emission Requirements). However, there is no specific PM10 requirement for this slag and kish processing plant.

326 IAC 6-1-2(a)(Nonattainment Area Particulate Limitations)

This source is located in Lake County and has potential to emit PM before control greater than 100 tons/yr. Therefore, particulate matter (PM) emissions from each of the feeders, screens, crusher, and conveyor transfer points shall not exceed 0.03 grains per dry standard cubic foot (dscf) of exhaust air.

326 IAC 6-1-11.1 (Lake County Fugitive Particulate Matter Control Requirements)

This slag and kish processing plant is collocated with Ispat Inland, Inc. and is located in Lake County. Pursuant to 326 IAC 6-1-11.1(a)(2)(I), this modification is subject to the requirements of 326 IAC 6-1-11.1 and the particulate matter emissions from this modification shall meet the following requirements:

- (a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).
- (b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).
- (c) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).
- (d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.
- (e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.
- (f) There shall be a zero percent (0%) frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.
- (g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).
- (h) There shall be a zero percent (0%) frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.
- (i) The PM₁₀ emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.
- (j) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).
- (k) Any facility or operation not specified in 326 IAC 6-1-11.1(d) shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the Fugitive Dust Control Plan, submitted on September 4, 2003. This plan indicates that the fugitive emissions will be controlled with water suppression.

326 IAC 6-1-11.2 (Lake County Particulate Matter Contingency Measures)

This source is located in Lake County and has the potential PM₁₀ emissions greater than ten (10) tons/yr. Therefore, this source is subject to the requirements of 326 IAC 6-1-11.2.

326 IAC 6-3 (Process Operation)

All of the emission units in this modification are subject to the requirements contained in 326 IAC 6-1-2(a)(Nonattainment Area Particulate Limitations). Therefore, these emission units are exempt from the requirements of 326 IAC 6-3, pursuant to 326 IAC 6-3-1(b)(1).

326 IAC 6-4 (Fugitive Dust Emissions)

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

326 IAC 6-5-1 (Fugitive Particulate Matter Emission Limitations)

This source is located in Lake County and the potential to emit fugitive particulate matter from the storage pile is less than 25 tons per year. Therefore, the requirements of 326 IAC 6-5-1 are not applicable.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

Since the actual emissions from the entire source are less than 25 tons/yr before control, there are no specifically applicable monitoring requirements for the feeders, the screens, the grizzlies, the crushers, and the conveyors at this source.

Conclusion

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 089-17482-00367.

Appendix A: Emission Calculations
PM/PM10 Emissions
From the Ferrous Recovery Plant BOF#2

Company Name: Heckett MultiServ Plant
Address: 3236 Watling Street, East Chicago, Indiana 46312
MSM #: 089-17482-00367
Reviewer: ERG/YC
Date: November 13, 2003

Maximum Throughput Rate:
 (tons/hr)

Throughput Limit
 (tons/yr)

Process	***Number of Units	PM10 Emission Factor (lbs/ton)	Unlimited PTE of PM10 (lbs/hr/unit)	Unlimited PTE of PM10 (tons/yr)	Limited PTE of PM10 (tons/yr)	PM Emission Factor (lbs/ton)	Unlimited PTE of PM (lbs/hr/unit)	Unlimited PTE of PM (tons/yr)	Limited PTE of PM (tons/yr)
*Feeders	2	0.000430	0.26	2.26	1.07	0.000880	0.53	4.63	2.20
**Grizzly and Screens	3	0.000840	0.50	6.62	3.14	0.001764	1.06	13.9	6.60
**Conveyor Transfer Points	9	0.000048	0.03	1.14	0.54	0.000101	0.06	2.38	1.13
Total				10.0	4.76			20.9	9.93

* The emission factor (EF) for the feeder is the one for low silt batch drop from iron and steel mill in AP-42, Table 12.5-4 (10/86). Since the moisture content is greater than 1.5% in the received material, the emission factor is equivalent to the controlled emission factor with wet suppression (EF = Uncontrolled EF x (1-90%)).

** Since the material processed has a moisture content greater than 1.5%, the uncontrolled EF for the screening operations and the conveyor transfer points are equivalent to the controlled EF in AP-42, Chapter 11.19.2, Table 11.19.2-2 (01/95). Assume all TSP emissions equal to PM emissions and the TSP emission factors can be estimated by multiplying PM10 emission factors by 2.1.

*** This is based on the worst case scenario and the associated plant configuration.

Methodology

Unlimited PTE (lbs/hr/unit) = Maximum Throughput (tons/hr/unit) x Emission Factor (lb/ton)

Unlimited PTE (tons/yr) = Unlimited PTE (lbs/hr/unit) x Number of Units x 8760 hr/yr x 1 ton/2000 lbs

Limited PTE (tons/yr) = Throughput Limit (tons/yr) x Emission Factor (lb/ton) x Number of Units x 1 ton/2000 lbs

Appendix A: Emission Calculations
PM and PM10 Emissions
From the Stock Piles at Ferrous Recovery Plant BOF#2 (Fugitive Emissions)

Company Name: Heckett MultiServ Plant
Address: 3236 Watling Street, East Chicago, Indiana 46312
MSM #: 089-17482-00367
Reviewer: ERG/YC
Date: November 13, 2003

1. Emission Factors:

According to AP42, Chapter 13.2.4 - Aggregate Handling and Storage Piles (01/95), the emission factor of PM for aggregate handling process can be estimated using the following equation:

$$E_f = \frac{.0032 \times (U/5)^{1.3} \times k}{(M/2)^{1.4}}$$

where:

E_f = Emission Factor (lbs/ton)

k = Particle size multiplier =

U = Mean wind speed (mph) =

M = Moisture content (%) =

0.74 for PM and 0.35 for PM10

12 mph

1.5 % for uncontrolled (for the material received, provided by the source)

4.1 % for controlled (using wet suppression)

2. Potential to Emit PM/PM10:

Maximum Throughput Rate: (8 piles total)

600 (tons/hr)

Throughput Limit:

2,496,000 (tons/yr)

Pollutant	Unlimited PTE		Limited PTE	
	PM	PM10	PM	PM10
*Emission Factor (lbs/ton)	0.011	0.005	2.71E-03	1.28E-03
Potential to Emit (tons/yr)	29.05	13.7	3.38	1.60

* Emission factors are calculated using the equation above.

Methodology

Uncontrolled PTE (tons/yr) = Max. Throughput (tons/hr) x Uncontrolled Emission Factor (lb/ton) x 8760 hr/yr x 1 ton/2000 lbs

Controlled PTE (tons/yr) = Throughput Limit (tons/yr) x Controlled Emission Factor (lb/ton) x 1 ton/2000 lbs

Appendix A: Emission Calculations
PM/PM10 Emissions
From the Ferrous Recovery Plant BOF#4

Company Name: Heckett MultiServ Plant
Address: 3236 Watling Street, East Chicago, Indiana 46312
MSM #: 089-17482-00367
Reviewer: ERG/YC
Date: November 13, 2003

Maximum Throughput Rate:
 (tons/hr)

Throughput Limit
 (tons/yr)

Process	***Number of Units	PM10 Emission Factor (lbs/ton)	Unlimited PTE of PM10 (lbs/hr/unit)	Unlimited PTE of PM10 (tons/yr)	Limited PTE of PM10 (tons/yr)	PM Emission Factor (lbs/ton)	Unlimited PTE of PM (lbs/hr/unit)	Unlimited PTE of PM (tons/yr)	Limited PTE of PM (tons/yr)
*Feeders	2	0.00043	0.13	1.13	0.54	0.000880	0.26	2.31	1.10
**Grizzly and Screens	2	0.00084	0.25	2.21	1.05	0.001764	0.53	4.64	2.20
**Crusher	1	0.00059	0.18	0.78	0.37	0.001239	0.37	1.63	0.77
**Conveyor Transfer Points	11	0.000048	0.01	0.69	0.33	0.000101	0.03	1.46	0.69
Total				4.81	2.28			10.0	4.76

* The emission factor (EF) for the feeder is the one for low silt batch drop from iron and steel mill in AP-42, Table 12.5-4 (10/86). Since the moisture content is greater than 1.5% in the received material, the emission factor is equivalent to the controlled emission factor with wet suppression ($EF = \text{Uncontrolled EF} \times (1 - 90\%)$).

** Since the material processed has a moisture content greater than 1.5%, the uncontrolled EF for the screening operations, the crusher, and the conveyor transfer points are equivalent to the controlled EF in AP-42, Chapter 11.19.2, Table 11.19.2-2 (01/95). Assume all TSP emissions equal to PM emissions and the TSP emission factors can be estimated by multiplying PM10 emission factors by 2.1.

*** This is based on the worst case scenario and the associated plant configuration.

Methodology

Unlimited PTE (lbs/hr/unit) = Maximum Throughput (tons/hr/unit) x Emission Factor (lb/ton)

Unlimited PTE (tons/yr) = Unlimited PTE (lbs/hr/unit) x Number of Units x 8760 hr/yr x 1 ton/2000 lbs

Limited PTE (tons/yr) = Throughput Limit (tons/yr) x Emission Factor (lb/ton) x Number of Units x 1 ton/2000 lbs

Appendix A: Emission Calculations
PM and PM10 Emissions
From the Stock Piles at Ferrous Recovery Plant BOF#4 (Fugitive Emissions)

Company Name: Heckett MultiServ Plant
Address: 3236 Watling Street, East Chicago, Indiana 46312
MSM #: 089-17482-00367
Reviewer: ERG/YC
Date: November 13, 2003

1. Emission Factors:

According to AP42, Chapter 13.2.4 - Aggregate Handling and Storage Piles (01/95), the emission factor of PM for aggregate handling process can be estimated using the following equation:

$$Ef = \frac{.0032 \times (U/5)^{1.3} \times k}{(M/2)^{1.4}}$$

where:

Ef = Emission Factor (lbs/ton)

k = Particle size multiplier =

U = Mean wind speed (mph) =

M = Moisture content (%) =

0.74 for PM and 0.35 for PM10

12 mph

1.5 % for uncontrolled (for the material received, provided by the source)

4.1 % for controlled (using wet suppression)

2. Potential to Emit PM/PM10:

Maximum Throughput Rate: (8 piles total)

300 (tons/hr)

Throughput Limit:

1,248,000 (tons/yr)

Pollutant	Uncontrolled PTE		Controlled PTE	
	PM	PM10	PM	PM10
*Emission Factor (lbs/ton)	0.011	0.005	2.71E-03	1.28E-03
Potential to Emit (tons/yr)	14.5	6.87	1.69	0.80

* Emission factors are calculated using the equation above.

Methodology

Uncontrolled PTE (tons/yr) = Max. Throughput (tons/hr) x Uncontrolled Emission Factor (lb/ton) x 8760 hr/yr x 1 ton/2000 lbs

Controlled PTE (tons/yr) = Throughput Limit (tons/yr) x Controlled Emission Factor (lb/ton) x 1 ton/2000 lbs

Appendix A: Emission Calculations
PM/PM10 Emissions
From the Portable Ferrous Recovery Plant

Company Name: Heckett MultiServ Plant
Address: 3236 Watling Street, East Chicago, Indiana 46312
MSM #: 089-17482-00367
Reviewer: ERG/YC
Date: November 13, 2003

Maximum Throughput Rate:
 (tons/hr)

Throughput Limit
 (tons/yr)

Process	***Number of Units	PM10 Emission Factor (lbs/ton)	Unlimited PTE of PM10 (lbs/hr/unit)	Unlimited PTE of PM10 (tons/yr)	Limited PTE of PM10 (tons/yr)	PM Emission Factor (lbs/ton)	Unlimited PTE of PM (lbs/hr/unit)	Unlimited PTE of PM (tons/yr)	Limited PTE of PM (tons/yr)
*Feeders	1	0.000430	0.13	0.57	0.27	0.000880	0.26	1.16	0.55
**Grizzly and Screens	1	0.000840	0.25	1.10	0.52	0.001764	0.53	2.32	1.10
**Conveyor Transfer Points	4	0.000048	0.01	0.25	0.12	0.000101	0.03	0.53	0.25
Total				1.92	0.91			4.00	1.90

* The emission factor (EF) for the feeder is the one for low silt batch drop from iron and steel mill in AP-42, Table 12.5-4 (10/86). Since the moisture content is greater than 1.5% in the received material, the emission factor is equivalent to the controlled emission factor with wet suppression ($EF = \text{Uncontrolled EF} \times (1-90\%)$).

** Since the material processed has a moisture content greater than 1.5%, the uncontrolled EF for the screening operations and the conveyor transfer points are equivalent to the controlled EF in AP-42, Chapter 11.19.2, Table 11.19.2-2 (01/95). Assume all TSP emissions equal to PM emissions and the TSP emission factors can be estimated by multiplying PM10 emission factors by 2.1.

*** This is based on the worst case scenario and the associated plant configuration.

Methodology

Unlimited PTE (lbs/hr/unit) = Maximum Throughput (tons/hr/unit) x Emission Factor (lb/ton)

Unlimited PTE (tons/yr) = Unlimited PTE (lbs/hr/unit) x Number of Units x 8760 hr/yr x 1 ton/2000 lbs

Limited PTE (tons/yr) = Throughput Limit (tons/yr) x Emission Factor (lb/ton) x Number of Units x 1 ton/2000 lbs

Appendix A: Emission Calculations
PM and PM10 Emissions
From the Portable Ferrous Recovery Plant

Company Name: Heckett MultiServ Plant
Address: 3236 Watling Street, East Chicago, Indiana 46312
MSM #: 089-17482-00367
Reviewer: ERG/YC
Date: November 13, 2003

1. Emission Factors:

According to AP42, Chapter 13.2.4 - Aggregate Handling and Storage Piles (01/95), the emission factor of PM for aggregate handling process can be estimated using the following equation:

$$Ef = \frac{.0032 \times (U/5)^{1.3} \times k}{(M/2)^{1.4}}$$

where:

Ef = Emission Factor (lbs/ton)

k = Particle size multiplier =

U = Mean wind speed (mph) =

M = Moisture content (%) =

0.74 for PM and 0.35 for PM10

12 mph

1.5 % for uncontrolled (for the material received, provided by the source)

4.1 % for controlled (using wet suppression)

2. Potential to Emit PM/PM10:

Maximum Throughput Rate: (3 piles total)

300 (tons/hr)

Throughput Limit:

1,248,000 (tons/yr)

Pollutant	Uncontrolled PTE		Controlled PTE	
	PM	PM10	PM	PM10
*Emission Factor (lbs/ton)	0.011	0.005	2.71E-03	1.28E-03
Potential to Emit (tons/yr)	14.5	6.87	1.69	0.80

* Emission factors are calculated using the equation above.

Methodology

Uncontrolled PTE (tons/yr) = Max. Throughput (tons/hr) x Uncontrolled Emission Factor (lb/ton) x 8760 hr/yr x 1 ton/2000 lbs

Controlled PTE (tons/yr) = Throughput Limit (tons/yr) x Controlled Emission Factor (lb/ton) x 1 ton/2000 lbs

Appendix A: Emission Calculations
PM/PM10 Emissions
From the Boat Loading Operation

Company Name: Heckett MultiServ Plant
Address: 3236 Watling Street, East Chicago, Indiana 46312
MSM #: 089-17482-00367
Reviewer: ERG/YC
Date: November 13, 2003

Maximum Throughput Rate:
 (tons/hr)

Throughput Limit
 (tons/yr)

Process	Number of Units	PM10 Emission Factor (lbs/ton)	Unlimited PTE of PM10 (lbs/hr/unit)	Unlimited PTE of PM10 (tons/yr)	Limited PTE of PM10 (tons/yr)	PM Emission Factor (lbs/ton)	Unlimited PTE of PM (lbs/hr/unit)	Unlimited PTE of PM (tons/yr)	Limited PTE of PM (tons/yr)
*Feeders	1	0.000430	0.56	2.45	0.08	0.000880	1.144	5.01	0.17
**Grizzly and Screens	1	0.000840	1.09	4.78	0.16	0.001764	2.293	10.0	0.34
**Conveyor Transfer Points	2	0.000048	0.06	0.55	0.02	0.000101	0.131	1.15	0.04
Total				7.78	0.27			16.2	0.55

* The emission factor (EF) for the feeder is the one for low silt batch drop from iron and steel mill in AP-42, Table 12.5-4 (10/86). Since the moisture content is greater than 1.5% in the received material, the emission factor is equivalent to the controlled emission factor with wet suppression ($EF = \text{Uncontrolled EF} \times (1-90\%)$).

** Since the material processed has a moisture content greater than 1.5%, the uncontrolled EF for the screening operations and the conveyor transfer points are equivalent to the controlled EF in AP-42, Chapter 11.19.2, Table 11.19.2-2 (01/95). Assume all TSP emissions equal to PM emissions and the TSP emission factors can be estimated by multiplying PM10 emission factors by 2.1.

Methodology

Unlimited PTE (lbs/hr/unit) = Maximum Throughput (tons/hr/unit) x Emission Factor (lb/ton)

Unlimited PTE (tons/yr) = Unlimited PTE (lbs/hr/unit) x Number of Units x 8760 hr/yr x 1 ton/2000 lbs

Limited PTE (tons/yr) = Throughput Limit (tons/yr) x Emission Factor (lb/ton) x Number of Units x 1 ton/2000 lbs

**Appendix A: Emission Calculations
PM and PM10 Emissions
From the Boat Loading Operation**

**Company Name: Heckett MultiServ Plant
Address: 3236 Watling Street, East Chicago, Indiana 46312
MSM #: 089-17482-00367
Reviewer: ERG/YC
Date: November 13, 2003**

1. Emission Factors:

According to AP42, Chapter 13.2.4 - Aggregate Handling and Storage Piles (01/95), the emission factor of PM for aggregate handling process can be estimated using the following equation:

$$Ef = \frac{.0032 \times (U/5)^{1.3} \times k}{(M/2)^{1.4}}$$

where:

Ef = Emission Factor (lbs/ton)

k = Particle size multiplier =

U = Mean wind speed (mph) =

M = Moisture content (%) =

0.74 for PM and 0.35 for PM10

12 mph

1.5 % for uncontrolled (for the material received, provided by the source)

4.1 % for controlled (using wet suppression)

2. Potential to Emit PM/PM10:

Maximum Throughput Rate:

1,300 (tons/hr)

Throughput Limit:

390,000 (tons/yr)

Pollutant	Uncontrolled PTE		Controlled PTE	
	PM	PM10	PM	PM10
*Emission Factor (lbs/ton)	0.011	0.005	2.71E-03	1.28E-03
Potential to Emit (tons/yr)	62.9	29.8	0.53	0.25

* Emission factors are calculated using the equation above.

Methodology

Uncontrolled PTE (tons/yr) = Max. Throughput (tons/hr) x Uncontrolled Emission Factor (lb/ton) x 8760 hr/yr x 1 ton/2000 lbs

Controlled PTE (tons/yr) = Throughput Limit (tons/yr) x Controlled Emission Factor (lb/ton) x 1 ton/2000 lbs